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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,469	02/13/2002	Walter Nowak	3212-24	4221

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DUANE MORRIS, LLP
IP DEPARTMENT
ONE LIBERTY PLACE
PHILADELPHIA, PA 19103-7396

EXAMINER

LIN, TINA M

ART UNIT PAPER NUMBER

2874

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

WV

Office Action Summary	Application No.	Applicant(s)	
	09/936,469	NOWAK ET AL.	
	Examiner	Art Unit	
	Tina M Lin	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16--23 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8,9,12,14,16,17,21 and 23 is/are rejected.
- 7) ☒ Claim(s) 4,6,7,10,11,13,18-20 and 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/29/02</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Receipt from the International Bureau is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) in this national stage application, which papers have been placed of record in the file.

New corrected drawings are required in this application because: The drawings filed with this application on 12 September 2001, are objected to as being informal. Notice that Figure 1 the labels are handwritten. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim 1 is objected to because of the following informalities: On line 8 of claim 1, the two words " an other" appears to be a typographical error. It appears the two words should read as one word, "another". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 8, 9, 12, 14, 16, 17, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,903,683 to Lowry in view of U.S. Patent 5,878,071 to Delavaux. In regards to claims 1, 2, 3, 5, 9, 12, 14, 16, 17, 21 and 23 and referring to Figure 6, Lowry

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discloses a transmission component comprising of a multimode fiber optical waveguide with three gratings connected in series, where the grating reflects arriving light back to another grating and that grating reflects light back in the opposite direction to another grating and the process continues through all the gratings, where each time the light reflects, the mode changes. But Lowry fails to specifically disclose two pairs of chirped Bragg gratings. However, Lowry does disclose that the number of gratings is not limited to the three shown in Figure 6, any number of gratings can be used in order to allow from a more complicated delay or dispersion compensations. (Column 9) Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used two pairs or four gratings in order to obtain the desired dispersion compensation. Furthermore, Lowry discloses that the user compensates for dispersion by used a wavelength dependant selection of delay to arrange the signal By Applicant definition of a chirped on page 2 of the Specification, a chirped Bragg grating is a grating where the propagation path is wavelength dependant. Since Lowry discloses the dispersion compensation is wavelength dependant and a known method to compensate dispersion is by using a wavelength dependant chirped Bragg grating, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a chirped Bragg grating in order to obtain the wavelength dependant feature in the waveguide. Lastly, Lowry fails to disclose the optical waveguide to be made of glass. However, Delavaux discloses a chirped grating that can be written into glass waveguides. (Column 5) Since Lowry fails to mention the waveguide material, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a glass waveguide.

Allowable Subject Matter

Claims 4, 6, 7, 10, 11, 13, 18, 19, 20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record in this application fails to disclose or reasonably suggest two gratings each having a different grating constant ranges and opposite chirps, a glass core with a parabolic refractive index profile, the gratings are obliquely angled, and the cladding mode is used to carry modes. The prior art of record further fails to disclose or reasonably suggest the glass waveguide to have means for applying a mechanical force and temperature stabilization. The closest prior art of record is U.S. Patent 5,903,683 to Lowry discussed above and used in the art rejection above.

The documents submitted by applicant in the Information Disclosure Statement have been considered and made of record. Note attached copy of form PTO-1449. None of the documents submitted by Applicant discusses or reasonably suggests the allowable subject matter discussed above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References C-E fail to disclose or reasonably suggest the allowable subject matter discussed above.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

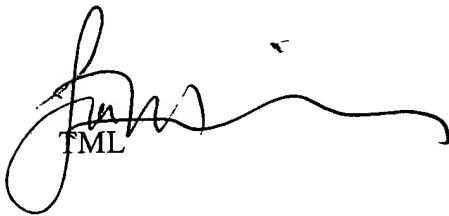
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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

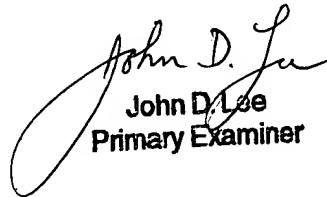
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M Lin whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TML



John D. Lee
John D. Lee
Primary Examiner